

1 LEONARD TACHNER, A PROFESSIONAL LAW CORPORATION
2 Leonard Tachner, Esq. (State Bar No. 058436)
3 17961 Sky Park Circle, Suite 38-E
Irvine, California 92614-6364
(949) 752-8525 Telephone
(949) 955-2415 Telefax

4 Attorney for Plaintiff
5

6 **UNITED STATES DISTRICT COURT**
7 **CENTRAL DISTRICT OF CALIFORNIA**

9 JAMES R. GLIDEWELL DENTAL
10 CERAMICS, INC. DBA
11 GLIDEWELL LABORATORIES, a
California corporation,

12 Plaintiff

13 vs.

14 KEATING DENTAL ARTS, INC., a
15 California corporation,

16 Defendant.

Case No. SACV11-01309-DOC(ANx)

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**DECLARATION OF GREG
MINZENMAYER IN SUPPORT OF
PLAINTIFF'S OPPOSITION TO
DEFENDANT'S MOTION FOR
PARTIAL SUMMARY JUDGMENT**
With Exhibit Nos. A-X

Hearing Date: March 26, 2012
Hearing Time: 8:30 A.M.

I, Greg Minzenmayer, hereby declare as follows:

1. I am the Chief Operating Officer for Plaintiff Glidewell Labs. I
have been a Glidewell Labs employee for six years and have been in the Chief
Operating Officer position for 1.5 years.

2. Glidewell Labs has been in business since January 1970 and has
since become the largest dental laboratory in the United States as measured by
the number of employees and by gross sales.

3. Glidewell Labs began selling BRUXZIR® restorations in June 2009 and has had more than \$67,000,000 gross sales of such products to date. In November, 2009 Glidewell Labs began offering ceramic blocks under the BRUXZIR® mark to other dental labs and has since sold about \$5,000,000 of such blocks.

4. In March, 2011 we first learned of marketing by Keating Dental Arts of competing zirconia dental restorations under their trademark KDZBRUXER.

5. I enclose herewith the following exhibits which are true and correct copies of the original documents generated according to data derived by Glidewell Labs or received by Glidewell Labs personnel in the due course of business:

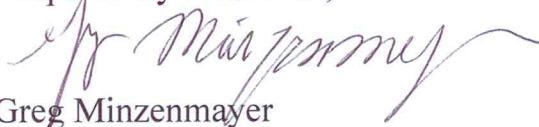
- A - Chart of monthly sales of BRUXZIR® restorations compared to sales of porcelain fused to metal restorations;
- B - Dental Excellence Awards Article on BRUXZIR® restorations;
- C - Dental Arts Lab ad on BRUXZIR® restorations;
- D - Article on an anterior BRUXZIR® solid zirconia crown;
- E - Article about Dr. Gordan Christensen's comments on BRUXZIR®;
- F - Acutech Article on BRUXZIR® restorations;
- G - Article on Recycling Program For BRUXZIR® Milling Blanks;
- H - Dental Arts Lab Article on BRUXZIR® restorations;
- I - Keller Labs Article on BRUXZIR® crowns;

1 J - Somer Dental Labs Article on BRUXZIR® crowns;
2 K - Dental Economics Article on BRUXZIR® crowns and
3 bridges;
4 L - Inside Dental Technology Article on Tosoh Award for
5 BRUXZIR®;
6 M - Mobiletek Article on being added to BRUXZIR® Lab list;
7 N - CPS Magazine Article on Whip Mix and BRUXZIR®
8 partnership;
9 O - Inside Dental Technology Article on BRUXZIR®
10 restorations;
11 P - Substructures Magazine Article on BRUXZIR® products;
12 Q - Clinicians Report Article on Emerging All-Ceramic
13 Restorations;
14 R - Clinicians Report Article on Recognizing BRUXZIR® as a
15 2011 Best Product;
16 S - Journal of Dental Technology Awarding BRUXZIR® #1
17 WOW Award;
18 T - List of Glidewell approved labs for BRUXZIR® block
19 program;
20 U - Glidewell Labs ad for BRUXZIR® crowns and bridges;
21 V - Albensi Lab ad for BRUXZIR® restorations;
22 W - Inside Dental Technology Top Picks including BRUXZIR®
23 restorations;
24 X - Medline Plus Medical Encyclopedia Definition of
25 “Bruxism”.
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1 I declare under penalty of perjury, under the laws of the United States of
2 America, that the foregoing is true and correct.
3
4

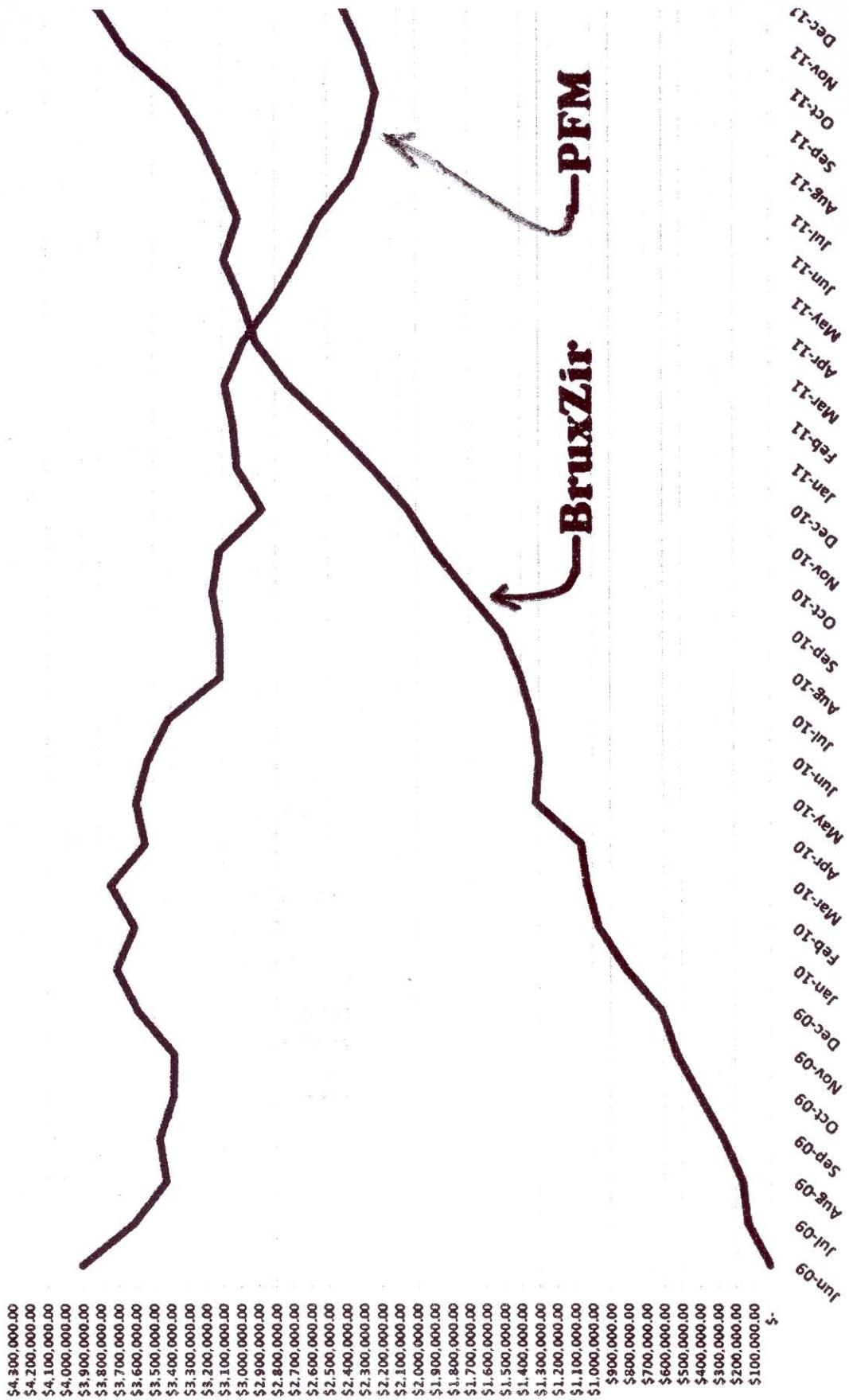
5 DATED: FEB 29, 2012

6 Respectfully submitted,

7 
8 Greg Minzenmayer
9 Chief Operating Officer
Glidewell Labs
Plaintiff

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BruxZir vs PFM - Monthly Sales



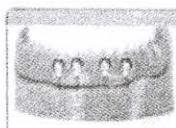


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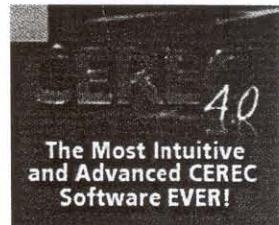
Dental Excellence Awards 2012 semifinal candidates

November 30, 2011 – Below is a list of semifinal candidates for the third annual DrBicuspid Dental Excellence Awards, DrBicuspid.com's campaign to recognize the best and brightest in dentistry.

Following hundreds of nominations from our members, we have pared down the list of semifinalists to 102 candidates in 12 categories.

Most Influential Dental Researcher

Robin Carden, Glidewell Laboratories
Rella Christensen, CR Foundation
Leslie Fang, DOCS Education
John Flucke, DDS
-Vince Kokich Jr., Kokich Orthodontics
Gilles Lavigne, University of Montreal
John Powers, University of Texas
Thomas E. Van Dyke, The Forsyth Institute



Most Effective Dentist Educator

Michael A. Blau, Boston University
Jonathan Bregman, Bregman Consulting
Larry Emmott, Emmott on Technology
Leslie Fang, DOCS Education
Anthony Feck, DOCS Education
Howard Glazer, Glazer Consulting
Lou Graham, VELscope
John Kois, Kois Center
Steven R. Olmos, TMJ and Sleep Therapy Research
Willis Pumphrey, ClearCorrect
Rhonda Savage, Miles Global
Frank Spear, Spear Education
Ryan Swain, Six Month Smiles



Most Effective Dental Hygienist Educator

Nancy Andrews
Linda Boyd, Forsyth School of Dental Hygiene
Wendy Briggs, Hygiene Diamonds and Brilliance Inner Circle
Andy Coddington, AndyFutureRDH.com
E. Lynn Goetsch, Madison Area Technical College
Jo-Anne Jones, VELscope
Michelle Klenk, Bridgemont Community and Technical College
Susan Kloosterboer, Madison Area Technical College
Judy Lopez, New Mexico Department of Health
Betsy Reynolds, Dental Hygiene Seminars
Rachel Wall, Inspired Hygiene
Lynda Young, University of Minnesota

Most Effective Dental Assistant Educator

Brittany Ashenfelter, Kaplan College
April Burus, DOCS Education
Aaruna Nayyar, Santa Fe Community College
Shannon Pace-Brinker, Dawson Academy
Lorraine Reppucci, Shawsheen Valley Tech High School

Best Practice Management Consultant

Steve Anderson, Total Patient Service Institute
Chris Bowman, Dental Insiders Alliance

EXHIBIT B (page 1 of 2)

Connie Corbin, Dental Solutions
 Jameson Management
 Sally McKenzie, McKenzie Management
 John Meis
 Linda Miles, Linda Miles & Associates
 Amy Morgan, Pride Institute
 Bonnie Pugh, Banta Consulting
 Kerry Straine, Straine Dental Consulting
 Sunrise Dental Solutions
 Jason White, J. White and Associates

Best New Material

Beautiful Flow Plus, Shofu Dental
 BruxZir, Glidewell Laboratories
 Optibond XTR, Kerr
 Scotchbond Universal Adhesive, 3M ESPE
 SonicFill, Kerr

Best New Instrument/Device

2pro Total Access Disposable Prophy Angle, Premier Dental
 3D Click Implant Guide, Idondivi
 Midwest RDH Freedom Cordless Handpiece, Dentsply International
 Onset Mixing Pen, Onpharma
 Safe Sedate Dental Nasal Mask, Safe Sedate
 Simplicity Hygiene Package, DentalEZ
 SL3 diode laser, Discus Dental

Best New Diagnostic/Imaging Device

Claris i4D Intraoral Scanner, Sota Imaging
 CS 9300, Carestream
 - GXDP-700, Gendex
 iCAT Precise, Imaging Sciences
 ProMax 3D ProFace, Planmeca
 Trio Intraoral Scanner, 3Shape
 Tru-Align, Interactive Diagnostic Imaging
 VELscope Vx (new version), LED Dental

Best New Software/Service

Cerec 4.0, Sirona Dental Systems
 Curve, Curve Dental
 EagleSoft 16.0, Patterson Dental
 i-CAT Precise with TxStudio, Imaging Sciences
 Patient Activator (updated), 1-800-DENTIST
 Sesame 24/7, Sesame Communications
 TMnDx, TMnDx Software Solutions
 YAPI, Practical Dental Solutions

Best New Consumer Product

Orabloc articaine, Pierre Research
 PerioPatch, MIS Implants
 PerioShield, Sunstar Americas
 Sonicare AirFloss, Philips
 Sparkle V 5%, Crosstex International
 XyliShield gum/mints/mouthwash, Ultradent

Most Popular Clinical Procedure

Cone-beam CT
 Dental implants
 Postextraction socket grafting
 Resin cone technique
 Sedation dentistry
 Six Month Smiles

Most Controversial Topic

Amalgam placement
 Bleaching by nondentists
 Botox injections from dentists
 Dental insurance (required PPO participation)
 Dental therapists/midlevel providers
 Electronic health record (EHR) mandate
 Expanded use of flowable composites
 Human papillomavirus (HPV) influence on oral cancer
 Occlusion philosophy
 Overlap between airways, temporomandibular disorders (TMD), and orthodontics

BRUXZIR™ SOLID ZIRCONIA

TECH SHEET

BruxZir Solid Zirconia is a full contoured zirconia restoration with no porcelain overlay. While BruxZir is more brawn than beauty, you'll be impressed by its esthetics when prescribed instead of metal occlusal PFM's and full-cast metal restorations. Virtually unbreakable, it is an ideal restoration for bruxers and grinders.

BruxZir crowns and bridges are made from the highest quality zirconia that is uniquely colloidal processed without mechanical pressing or contaminate organic binders for enhanced esthetics (patents pending). Other dental zirconia materials on the market today use organic binders to hold the powder together during high pressure pressing to form the milling blanks. Designed and milled using CAD/CAM technology, BruxZir crowns and bridges are sintered for 6.5 hours at 1,530° Celsius. The final BruxZir crown or bridge emerges nearly "bulletproof" and is glazed to a smooth surface.

CLINICAL INDICATIONS

BruxZir Solid Zirconia is indicated for bruxers and grinders when PFM metal occlusals or full-cast restorations are not desired. BruxZir is ideally suited for posterior molar crowns when the patient desires a tooth colored restoration but lacks the preparation space, or has broken a PFM crown in the past due to bruxing.

PATIENT BENEFITS

- Chip-resistant, as it is made of full zirconia with no porcelain overlay
- Glazed to a smooth surface to reduce plaque accumulation

PREPARATION

A shoulder preparation is not needed. Feather edge is okay. It is a conservative preparation similar to full-cast gold, so any preparation with at least 0.5 mm of occlusal space is acceptable; however, 1.0 mm is ideal.

ADJUSTMENTS/POLISHING

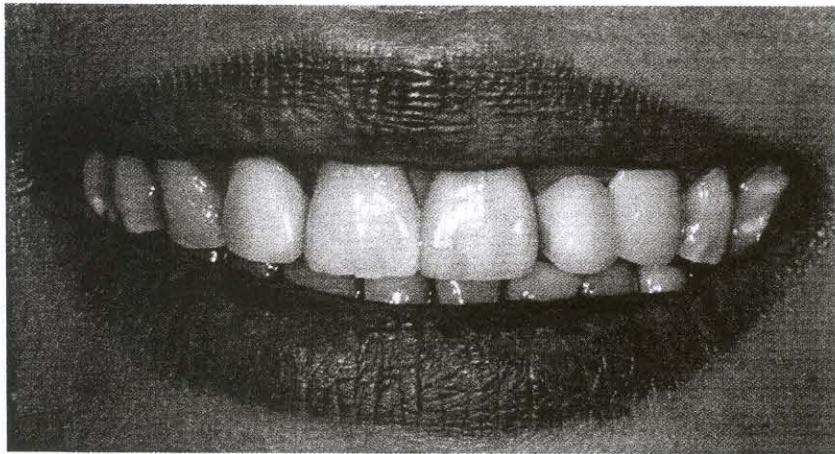
Adjust BruxZir restorations using water and air spray to keep the restoration cool and to avoid micro-fractures with a fine grit diamond. If using air only, use the lightest touch possible when making adjustments. A football shaped bur is the most effective for occlusal and lingual surfaces. A tapered bur is the ideal choice for buccal and lingual surfaces.

Polish BruxZir restorations with the porcelain polishing system of your choice. Or, purchase the Axis Dental BruxZir Adjustment & Polishing Set (LS-7579) through your dealer or by calling 800-355-5063.

CEMENTATION RECOMMENDATIONS

- Resin reinforced glass ionomer cement
(RelyX Luting Cement, 3M ESPE; GC Fuji Plus, GC America)
- Resin cements for short or over-tapered preparations
(RelyX Unicem, 3M ESPE; Panavia F2.0, Kuraray)





The final BruxZir Solid Zirconia crown (tooth #9) on the day of cementation. (DTI/Photo Michael C. DiTolla, DDS, FAGD)

Sep 13, 2011 | GENERAL DENTISTRY

Anterior BruxZir Solid Zirconia Crown

by Michael C. DiTolla, DDS, FAGD, USA

BruxZir Solid Zirconia crowns and bridges were originally designed by Glidewell Laboratories as an esthetic alternative to posterior cast gold or metal occlusals. As dentists began placing BruxZir restorations and were satisfied with the results, they started to prescribe BruxZir for bicuspids. The lab realized it needed to increase the translucency of the material if dentists wanted to prescribe BruxZir in the anterior.

When Glidewell R&D was ready to test the material, I gave them an esthetic challenge we all face: the single-unit central incisor crown adjacent to a natural tooth. This article highlights the clinical steps for placing an anterior BruxZir restoration. For a crown that is 100 percent zirconia with no ceramic facing, I think the lab pretty much nailed it.

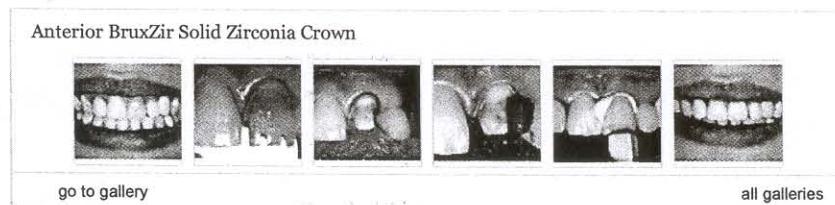


Figure 1

Tooth #9 is going to be prepped for a BruxZir crown. I chose this case because tooth #8 is a natural tooth, tooth #7 is an all-ceramic crown and teeth #10 and #11 are a PFM cantilever bridge. It will be a good test of how this light interacts with the BruxZir crown versus the natural tooth and two restorations.

After anesthetizing the patient with the STA System, I break the proximal contacts just enough to place the first of two retraction cords into the sulcus (Ultrapak Cord #00). Then I use the 801-021 bur to trace around the gingival margin before making my depth cuts: 2 mm at the incisal edge, 1.5 mm at the junction of the incisal and middle thirds and a 1 mm half-circle reduction at the gingival margin.

Depth cuts ensure that we get enough facial reduction to have an esthetically pleasing crown that is the same size as the adjacent natural tooth. This is difficult to achieve.

Figure 2

My depth cuts are now finished, which allows me to fly through the rest of the prep because the gingival is essentially done. The incisal edge takes about 15 seconds, and the facial reduction is marked with a depth cut. I turn my handpiece speed to 5,000 RPM and shut the water off to dial in and smooth the margins.

Figure 3

At this point, the prep is essentially done. After I place the top cord (Ultrapak #2E), I have a final opportunity to get a great look at the prep. Typically, I spend about 45 seconds polishing the prep, especially the gingival margin. Once again, I turn the handpiece down to 5,000 RPM and the water off, using a red-striped fine grit 856-025 bur to give the prep a mirror-like finish.

Figure 4

I place on the prep a ROEKO Compocap anatomic, which helps keep the retraction cord in place. Slightly wetting the inside before placing it keeps the tooth moist. I ask the patient to bite down for 8–10 minutes. The result is a sulcus that cannot be missed with an intraoral tip. (When your assistant pulls the top cord, look down from the incisal with a mirror to see what I mean.) The impression material flows into the sulcus. This level of detail enables the dental technician to build a proper emergence profile into the restoration.

Figure 5

I try in the BruxZir crown and find the fit to be acceptable. I decide to cement the restoration rather than bond it into place because I have sufficient prep length and it is not over-tapered. I use RelyX Luting Plus Cement because of its natural bond to dentin and simple cleanup. The inside of the crown is coated with Z-Prime Plus from Bisco to enhance the bond of the cement to the zirconia crown. A pinewood stick provides pressure while the cement sets.

Figure 6

This is the final BruxZir Solid Zirconia crown (tooth #9) on the day of cementation. It probably won't be mistaken for a natural tooth, but it blends well with the adjacent natural tooth (tooth #8).

When I compare it to the existing crowns in the anterior segment, I think the BruxZir crown looks better.

While I don't recommend that you jump into prescribing BruxZir for single-unit central incisors, this clinical anterior BruxZir Solid Zirconia crown cases demonstrates that this material is one step closer to being as well-suited for anterior restorations as it is for posterior restorations.

Editorial note: This article was originally published in Dental Tribune U.S., Vol. 6 No. 12, July 2011.

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EXHIBIT D (page 2 of 2)

10



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Gordon Christensen on BruxZir - from Dental Economics

Apr 13 2011

"Last week, I saw Dr Gordon Christensen speak at the Big Apple Dental Meeting in Mahwah, NJ - he covered a whole range of topics and focused a significant portion of his talk on the current 'state of affairs' in all ceramics - he had very positive things to say about EMAX and BruxZir (full contour zirconia). Dr Christensen's feelings about BruxZir and EMAX are stated in an article in the March 2011 issue of Dental Economics - here are some relevant excerpts from that article - you can read the full article here.

"Q Many of my patients prefer to avoid the use of metal in their mouths. I have suffered through the significant failures of many versions of all-ceramic restorations, and I'm not eager to try other all-ceramic restorations without sufficient positive research showing that they are working. There are many ads in dental journals about the newest form of all-zirconia tooth-colored indirect restorations. I think that concept was started by Glidewell Laboratories and is called BruxZir. All-zirconia restorations are advertised as excellent single- and multi-unit tooth colored restorations. What can you tell me about this newest unknown?"

A Your question is excellent. I am finding that many patients want to have nonmetal crowns. The movement is not new. They have always wanted tooth-colored restorations, but now the typical patient is becoming more aware of local intraoral metal allergies and alleged systemic problems related to metal in the mouth. You asked specifically about all-zirconia restorations, and I will limit my comments to that concept.

I too have suffered through several generations of all-ceramic restorations. They have ranged from single-crown restorations to multi-unit restorations. Although some generations of all-ceramic restorations or polymer restorations have served relatively well, if I summarized my own long history with these restorations, it would be one of hopeful and optimistic placement, but frequent and expensive failure. The porcelain-fused-to-metal restoration (PFM), now with over 50 years of successful service, cannot be thrown away yet, but we are at least questioning whether it should continue to be the dominant restoration. The profession knows what to expect from PFM, but tooth-colored restorations have been less predictable. Are there some exceptions?

IPS Empress and many clones have proven themselves over millions of restorations as single-tooth replacement restorations. They can be expected to serve with minimal failure if planned and fabricated well and cemented with bonded strong resin cement. Currently, IPS e.max is going through an in-the-mouth observation period with thousands of single-tooth restorations being placed with observable success. As with Empress, the restorations must be planned and fabricated well and seated with strong cement. Although the manufacturer of this type of crown is stating that any cement can be used, I still favor bonded resin cement."

"With this background, I will now answer your question to the best of my ability with the knowledge that we have in 2011. I fully admit that the profession, certainly including me, does not know much about all-zirconia restorations at this time."

Recent Blog Posts

Interesting Fall 2011 Dental Survey published by Dental Economics
Came across a great research report published by Baird and Dental Economics A brief excerpt:...

EMAX and BruxZir Xrays

Here's a cool XRAY that someone posted on a @DentalTown thread - side by side comparison of...

Dental Linkfest - Sunday Sept 4th, 2011

Here's some fun/useful links around the web about dentists and dentistry - enjoy! 1-800-DENT...

EXHIBIT E (page 1 of 2)

- Strength of zirconia. There is no question that zirconia is the strongest of all the materials that have ever been promoted for use as an all-ceramic restoration. I know that research strength numbers are not usually used by practitioners. Therefore, let's put zirconia strength into easily understood terms. Zirconia is more than 10 times stronger than human enamel. Although we don't know exactly what that means relative to long-term service, the strength of zirconia is certainly impressive.
- Occlusal wear of zirconia and opposing teeth. This is a relatively unknown area. There have been a few studies done, and there are a few research projects in progress, but conclusions are few, and all of them are short term.
- Long-term service potential of all-zirconia restorations. Based on the immediate popularity of all-zirconia restorations, it appears to me that patients would rather have strong, relatively esthetic restorations in preference to undetectable but questionably strong restorations. I must admit, I agree! When a patient in the U.S. has paid about \$1,000 for a crown or \$3,000 for a three-unit fixed prosthesis, that patient should expect the restoration to serve for a respectable period of years.
- Cost of all-zirconia restorations. Currently, over 10 companies provide all-zirconia restorations at costs to dentists that are lower on average than PFM restorations from the same laboratories.
- The future of all-zirconia restorations. At this time, we don't know their future; however, high dentist and patient interest in these restorations and the early reports from the profession should lead us to conclude that the potential for their continued growth and success is promising.

Does that mean waiting five years before trying them? No. Certainly there are many patients today for whom all-zirconia restorations appear to be an ideal choice. Patients with overt soft-tissue sensitivity to metals are primary candidates, patients who will not accept any metal in their mouths are another potential group, and patients who want reasonable strength and will be satisfied with a moderate esthetic result are another group.

My summary is to go for it in moderation! These restorations look like something we will be looking at for a long time. However, as I said, don't throw away PFM just yet.

Hope that helps - Dr Christensen's thoughts and research carry a lot of weight with all of us - interesting to see that he is so positive about these products - please contact me if you have further questions about BruxZir, EMAX or anything really :)

David

[Go back to the blog](#)

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MY ACCOUNT



BruxZir® Solid Zirconia is a monolithic solid zirconia restoration with no porcelain overlay. More brawn than beauty, you'll be impressed by the esthetics of BruxZir when prescribed instead of posterior metal occlusal PFM's and full-cast metal restorations. BruxZir is virtually chip proof, making it the ideal restoration for bruxers, implant restorations and areas with limited occlusal space.

Designed and milled using CAD/CAM technology, BruxZir is sintered for 6.5 hours at 1,530 degrees Celsius. The final BruxZir restoration emerges nearly chip proof and is glazed to a smooth surface.



Indications :

Single crowns
Bridge units
Crowns over implants
Inlays and Onlays

Summary of advantages :

It is an esthetic alternative to PFM metal occlusal/lingual or full-cast restorations.
Chip-resistant, as it is made of solid zirconia with no porcelain overlay.
Glazed to a smooth surface to reduce plaque accumulation.

- **ADMZ Framework**
Copings / Framework up to 16 units
- **ADMZ Full Contour Crowns**
Exceptional Translucency
- **3M ESPE Lava Zirconia**
Copings / Framework up to 12 units
- **3M Essential Zirconia**
Copings / Framework up to 4 units
- **Bruxzir Zirconia**
Solid Zirconia
- **Custom Abutments**
Checkout the possibilities
- **Wax & PMMA Patterns**
CAD / CAM Precision

EXHIBIT F (page 1 of 2) -

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EXHIBIT F (page 2 of 2) -

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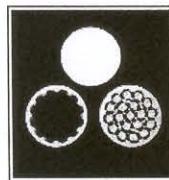
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Articles

Glidewell Laboratories Launches Recycling Program For BruxZir Milling Blanks

May 11, 2011

Newport Beach, CA (PRWEB) Glidewell Laboratories, industry-leading provider of dental lab products and services, announced today its newest green initiative: the recycling of post-milled BruxZir Solid Zirconia Milling Blanks.



The Glidewell Laboratories Research & Development team, using innovative processes, refines quality high-purity yttria-stabilized zirconia powder to a significantly reduced grain size, increasing its strength and optical properties. This improved material is then utilized in conjunction with proprietary processes to create monolithic zirconia BruxZir Milling Blanks for the fabrication of virtually chip-proof BruxZir Solid Zirconia crowns, bridges and implant restorations.

While zirconia has many applications in an array of fields, including energy, telecommunications, steel, mining, oil field supply and aerospace, the lab's reformulation of the material, including advances in nanotechnology, has been recognized as groundbreaking. The strength, high fracture toughness, resistance to thermal shock and translucency of BruxZir Solid Zirconia dental restorations have contributed to its rampant success in the dental profession.

When BruxZir restorations are milled from BruxZir Milling Blanks, not all of the refined zirconia material is utilized. A 98 mm diameter (12 mm thick) blank (300 grams) yields up to 19 single-unit crowns (1.6 grams each). That means only 30 grams worth of BruxZir material is used, or just 10 percent. The lab cannot reuse this material once it has been sintered because the crystallite properties expand exponentially, effectively diminishing its translucent properties.

For the past year, the lab's senior director of Research & Development Robin Carden has been researching ways to recycle the remaining 90 percent of unused post-milled BruxZir Milling Blank material. "We have been searching for ways to recycle our post-milled BruxZir material since March 2010," explained Carden. "Because zirconia is wear-resistant and able to withstand high temperatures, this material is ideal for applications such as molten metal nozzles, oil field valves and high temperature insulation.

"By recycling this material, Glidewell Laboratories is reducing its carbon footprint and allowing this material to be repurposed and reused for other applications that involve high temperature, thermal shock, corrosion, and high wear and impact," Carden added.

Glidewell Laboratories is pleased to launch this recycling program, which will allow other industries to benefit from zirconia's unique material properties. Additionally, the lab will invite its more than 100 Authorized BruxZir Laboratory partners to participate. For more information about BruxZir Solid Zirconia, please visit www.bruxzir.com.

Glidewell Laboratories, based in Newport Beach, Calif., is a privately owned corporation that has more than 40 years of history as a provider of high-quality services and products to dentists and dental laboratories nationwide. It has its own 73-person Research and Development team and is the most resourceful dental laboratory in the world. Its newly developed CAD/CAM processing capabilities are recognized as among the most advanced in the industry. To view our large selection of products and services, visit www.glidewell.com.

SOURCE: PRWeb

View original release here: <http://www.prweb.com/releases/prwebglidewell-dental-lab/bruxzir-solid-zirconia/prweb5269394.htm>

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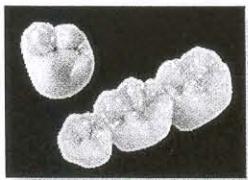
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BruxZir™ Solid Zirconia

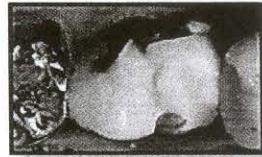


BruxZir Solid Zirconia is a full contoured zirconia restoration with no porcelain overlay. While BruxZir is more brawn than beauty, you'll be impressed by its esthetics when prescribed instead of metal occlusal PFMs and full-cast metal restorations. Virtually unbreakable, it is an ideal restoration for bruxers and grinders.

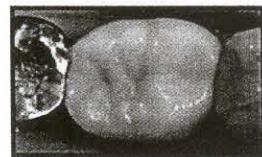
Designed and milled using CAD/CAM technology, BruxZir crowns and bridges are sintered for 6.5 hours at 1,530°C. The final BruxZir crown or bridge emerges "nearly bulletproof" and is glazed to a smooth surface.

Benefits for Your Patients

- Chip-resistant, as it is made of full zirconia with no porcelain overlay
- Glazed to a smooth surface to reduce plaque accumulation



Before



After

Indications

BruxZir Solid Zirconia is indicated for posterior crowns, bridges, inlays and onlays. BruxZir is an ideal solution for bruxers and grinders when PFM metal occlusals or full-cast restorations are not desired. BruxZir is also ideally suited for posterior molar crowns when the patient lacks the preparation space for a PFM or has broken a PFM in the past due to bruxing.

Cementation

- Resin reinforced glass ionomer cement (RelyX Luting Cement, 3M ESPE; GCFuji Plus, GC America)
- Resin cements for short or over-tapered preparations (RelyX Unicem, 3M ESPE; Panavia F2.0, Kuraray)

Preparation Guidelines

Shoulder preparation not needed, feather edge is okay. It is a conservative preparation similar to full-cast gold so any preparation with at least 0.5 mm of occlusal space is acceptable. Minimum occlusal space of 0.5 mm, but 1.0 mm is ideal.

For complete information, please refer to our **BruxZir Solid Zirconia Tech Sheet**.

BruxZir is a trademark of Glidewell Laboratories.



EXHIBIT H (page 1 of 3)



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EXHIBIT H (page 3 of 3)

Winter 2011



Education News from Keller Laboratories

BruxZir®

Total Zirconia Crowns

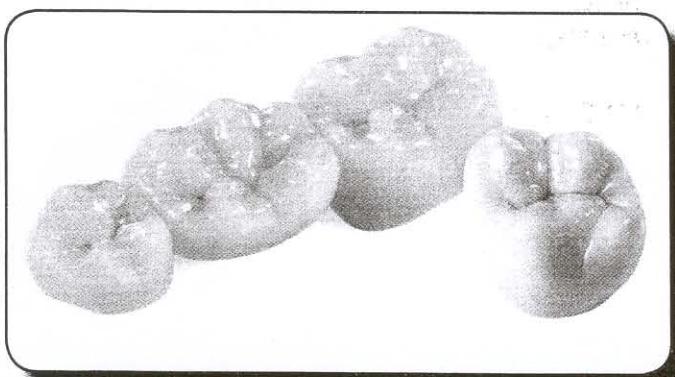
Over 250,000 BruxZir Crowns Sold Nationwide:

We don't sell iPhones or e-readers but we do offer the hottest product in the dental industry. Dentists are buzzing over the benefits of BruxZir® Total Zirconia Crowns.

In the last 13 months Keller has fabricated over 20,000 BruxZir crowns with reports of overwhelming clinical success.

When BruxZir was first introduced we had many doctors wonder if monolithic zirconia would damage the opposing dentition. Even though it is extremely strong, tests have shown BruxZir to be safe on opposing teeth. BruxZir Solid Zirconia and Ceramco3 were recently tested in a comparative wear study.* Each material was tested using a Chewing Simulator, which simulated the clinical performance of the material over a period of five years. After 1.2 million wear cycles under a load of 5 kg, BruxZir compared favorably to Ceramco3 with barely detectable wear.

Doctors also wondered what the polishing protocol is for BruxZir. Keller recommends a one



www.kellerlab.com

step ceramic paste dot for individual use. You can get these "Ceramo-Dotz" from Dental Ventures of America by calling 800-228-6696. You can also use your usual polishing method.

There is no substitute for clinical experience and with BruxZir we have quickly learned procedures that ensure the best possible results. Accept no imitations when prescribing Total Zirconia Crowns as BruxZir has established a track record as the industry leader.

* Wear Test, Prof. Dr. J. Geis-Gerstorfer, Osianderstraße 2-8

Did You Know? BruxZir® Comes in 16 Vita Shades

There has been minimal information released about BruxZir®'s ability to be shaded in 16 different vita shades. The messaging about BruxZir has instead been focused on the crown's well-earned reputation for having "More Brawn than Beauty" and being ideal for bruxers & grinders who have destroyed other restorations.

We constantly work to improve the esthetics of BruxZir. The restorations are dipped in the desired Vita body shade and the zirconia absorbs the shade.

Light bounces off zirconia oxide differently than many other dental materials. As a result there are unique shade considerations for BruxZir Solid Zirconia. Because of how much light reflects off of the zirconia material the vita shade of the crown should be two to three shades darker than the surrounding teeth. For instance, a typical indication of an A1 shade would look best as an A4 shade.

Even though cosmetic dentistry is not what BruxZir is designed for, the esthetics can be quite lifelike.

Let our communications team walk you through the shading for your next BruxZir crown. You will be thrilled with the results. Contact Keller Laboratories at 800-325-3056.

New Flexible Partial Material Now Available from Keller

DuraFlexTM

flexible partial dentures

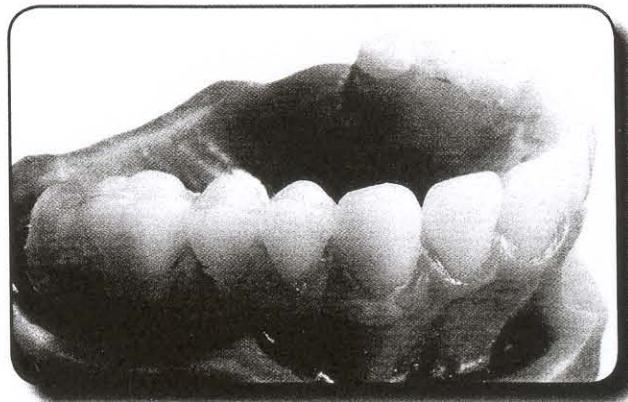
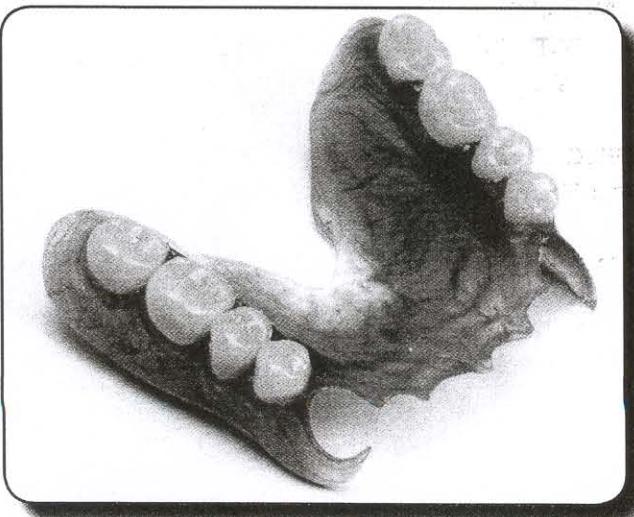
Flexible Partial dentures, like Valplast[®], are great for a lot of reasons. The metal-free material is strong, thin, flexible and lightweight and it comes at a reasonable price. But Valplast does have some room for improvement.

The DuraFlexTM Partial Denture from Keller Laboratories offers that improvement you have been waiting for.

The most common complaint about flexible partials is that they are difficult to adjust. DuraFlex Partial dentures resolve that issue. They are made with a state-of-the-art material that has a higher melting point than Valplast. Adjusting DuraFlex won't gum up your tools like other flexible partials. The result is a partial that is easier to adjust, easier to polish and has better color stability.

DuraFlex also offers fantastic esthetics with veined acrylic in three shades. The material is very translucent allowing the natural coloring of the tissue to show through the material causing DuraFlex to virtually disappear in the mouth.

DuraFlex is more dense than conventional acrylic dentures for a slick finish that, unlike



nylon based materials, won't discolor, and is highly resistant to stains and odors.

Why choose DuraFlex?

It's Easy: Simple to adjust and polish.

It's Esthetic: Lifelike pink shades with veined acrylic details.

It's Comfortable: Thin, lightweight, and flexible for easy insertion.

It's Strong: Clinically unbreakable and more durable than acrylic.

It's Hygienic: Won't absorb stains or odors.

Keller is offering DuraFlex at a great flat rate price including process, setup, and Kenson teeth (premium teeth are available for an additional charge). We can also reline, repair, and add teeth to DuraFlex.

On your next partial denture give DuraFlex a try. Keller's trained and experienced communications team will provide you with all the information you need. We think you and your patient will be thrilled with the new material. Give us a call at 1 800-325-3056.

Keller Locations

(800) 325-3056 St. Louis, Missouri

(800) 292-1894 Louisville, Kentucky

(800) 325-3056 Indianapolis, Indiana

(800) 821-3107 Kansas City, Missouri

Losing Sleep Trying to Grow Your Practice? Begin Screening for Snoring and Sleep Apnea

Many practices have discovered a new revenue stream by introducing a potentially life-saving treatment, Oral Appliance Therapy (OAT) for snoring and Obstructive Sleep Apnea (OSA). With over 30 million Americans suffering from OSA, a sizable portion of your existing patient base likely exhibit some of its signs and symptoms, from daytime sleepiness and obesity to high blood pressure and headaches.

Screening for snoring and OSA is simple and doesn't require any new equipment. Consider adding the Epworth Sleepiness Scale (ESS) to your patient health history questionnaire. The ESS is an 8 question survey that can be used to identify patients that may be suffering from Sleep Disordered Breathing.

Most patients don't see a correlation between their snoring, fatigue or medical comorbidities and some simple explanation can help strengthen that connection. Adding OAT patient brochures in your waiting area can increase awareness among your patients that you may be able to improve their quality of life with the TAP or EMA appliances.

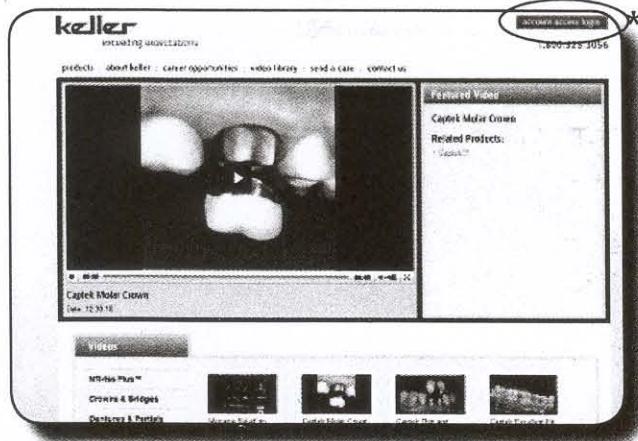
In 2006, the American Academy of Sleep

Medicine's practice parameters stated that OAT is a first-line treatment option for mild to moderate OSA & is also indicated for severe CPAP noncompliant patients. Keller Laboratories proudly offers the TAP and EMA devices, both FDA approved for the treatment of snoring and OSA.

Visit us at www.kellerlab.com for a copy of the ESS and more information about TAP, EMA, and our OAT learning opportunities, including free webinars & live CE programs.



Keller Introduces New Online Video Library



We have updated our website with more functionality and a specific enhancement in our video capabilities.

We now have a dedicated video library

where you can find instructional and informational videos to help grow your practice and make things easier for you. To view the video library simply click the video library link on the navigation bar at the top of the page.

Kellerlab.com also features a learning resources section with links to audio and video information, CE courses, practice tools and product studies and articles.

*You can still log in to your Keller Access account by clicking the button at the top right corner of every page.

If you have any questions about our new website or need assistance setting up your online account, contact our Customer Service team at: (800) 325-3056.

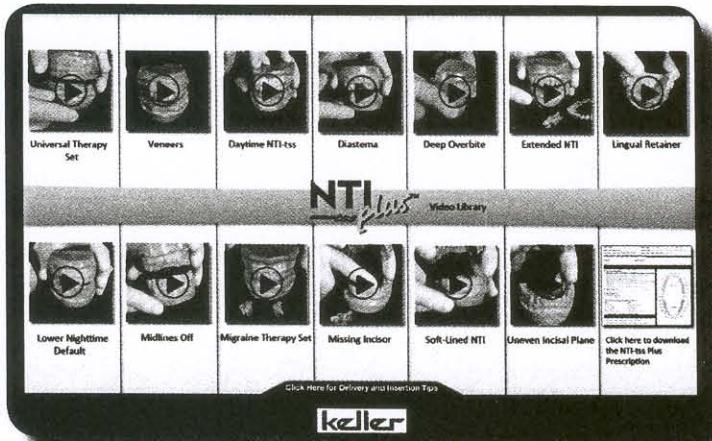
We welcome your feedback on the updates to the website. Email us at keller@kellerlab.com.

Interactive "NTI is Easy as 1-2-3" Video Premieres Online

Keller Laboratories, Inc. has the experience of fabricating tens of thousands of NTI-tss Plus appliances behind us and we aim to make using the NTI in your practice as Easy as 1-2-3.

Whether using the NTI therapeutic protocol for its diagnostic, protection, or therapeutic indications, the "NTI is Easy as 1-2-3" video series will serve as a virtual case evaluation.

The video series, shot in HD, features brief, yet descriptive videos detailing NTI appliance design criteria, arch choice indications and contraindications, as well as clinical tutorials demonstrating chairside insertion and adjustment techniques.

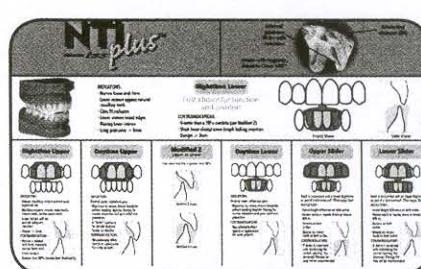


Ever wondered what to do when prescribing an NTI for a patient with a diastema, missing incisors, or veneers? This video series addresses all of those issues as well as indications for the soft-lined and extended coverage NTI designs. Have you ever had a patient bring in an old NTI that's not as retentive as it once was? An easy reline technique is also featured in this series.

The videos can be accessed on our website at www.kellerlab.com or you can contact our experienced NTI Communications Team for a free DVD at 1-800-325-3056.

Call Us For a Free NTI Design Chart!

This chart will help you make the best NTI-tss Plus design choice for your patients.



Spanish Patient Brochures Now Available



In our efforts to accommodate all of our doctors and their patients we are happy to offer **FREE** Spanish versions of our **NTI-tss Plus™** and **Valplast®** patient brochures. Just give us a call at 800-325-3056 or email us at keller@kellerlab.com and we'll send some Spanish brochures to your practice at no cost.

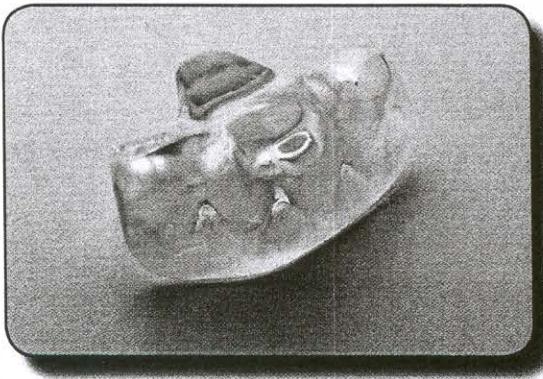
NTI Survey Results - Virtually No Adverse Effects



A survey of NTI providers across the United States and Canada has added to our understanding of the adverse events associated with the use of NTI-tss.

Andrew Blumenfeld, M.D. presented results of the survey at the 2nd European Headache and Migraine Trust International Congress in Nice, France. Dr. Blumenfeld's report dealt with the incidence of adverse events, and more specifically the incidence of aspiration and anterior open bite following the use of an NTI device. His abstract was published recently in the Journal of Headache and Pain.

Nearly 600 of the 6,312 dentists contacted responded to the web-based survey. They answered a variety of questions on patterns

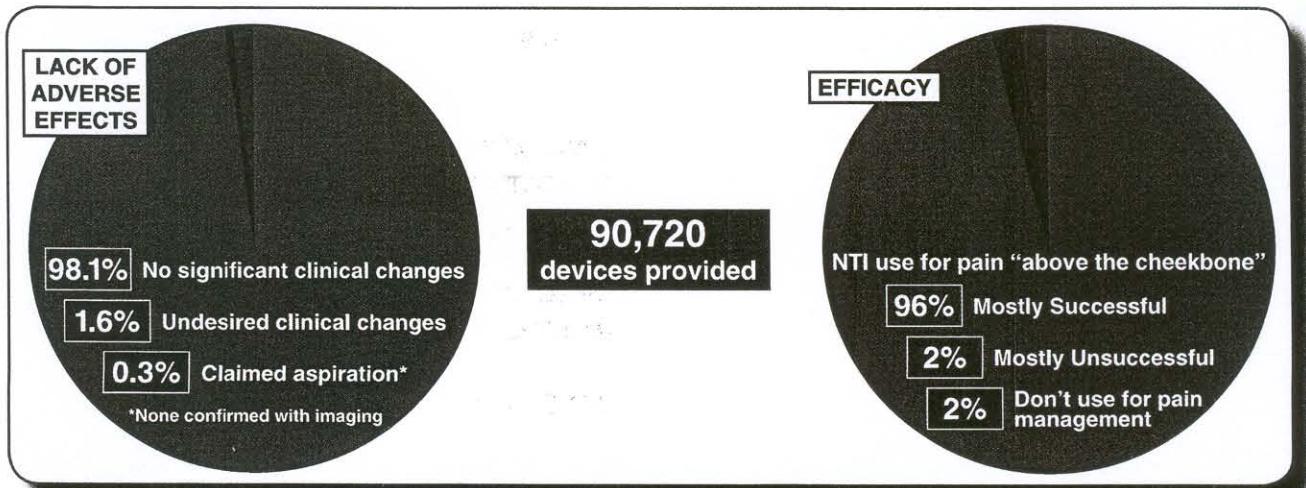


of NTI use, indications, and outcomes. The panelists observed the development of an anterior open bite in just 1.6% of 78,711 cases. While 0.3% of patients reported aspirating the device, most importantly, 0% of these reports were confirmed by X-ray.

Dental providers rated the NTI splint as an effective treatment for headache in over 96% of the patients they treated. Dr. Blumenfeld's conclusion: Headache can be effectively and safely treated with the NTI splint in dental practices.

If you would like a copy of Dr. Blumenfeld's poster, or a copy of the published abstract, you can find it on our website at www.kellerlab.com.

We have many other studies illustrating the NTI-tss as a simple and effective treatment for patients suffering from tension and migraine headaches. If you have any questions about the NTI-tss Plus please contact our experienced and thorough communications team at 1-800-325-3056. We look forward to hearing from you.



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The presentation will leave you saying "I can REALLY use this in my office," and "If he grew his practice in a shaky economy why can't I?"

The presentation is emotional, heartfelt and entertaining from a practicing dentist that really understands today's struggles.

Date:

Friday April 22, 2011

Location:

Ramada Plaza in Louisville, KY

6 CE Credits Available

For More Information visit www.realizingthedream.com or call Sibrina at:
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Bruxzir crowns have arrived

Fri, Mar 18, 2011

[Fixed Restorations](#), [News](#), [Uncategorized](#)

Bruxzir Crowns Now Available for Your Patients

Somer is happy to offer you Bruxzir zirconia crowns and expect they will find their way into your treatment planning.

What do you need to know?

Bruxzir crowns are 100% Zirconia and are thus very, very strong. They require a minimum of .5 mm reduction and are suitable for individual units and bridges.

Bruxzir crowns are cementable and are kind to the opposing dentition. They offer excellent wear characteristics.

Somer's Bruxzir crowns are milled in the USA and then finished to our standards by Somer technicians.

Use a traditional preparation.

What about costs?

Our fee is \$109. per unit and will immunize you against fluctuating alloy prices.

What about esthetics?

Bruxzir brings you many of the esthetic benefits of metal free crowns and to most patients, is almost certainly preferable to a gold, full cast crown.

But like gold, we do not use Bruxzir in the esthetic zone.

How does Bruxzir work?

1. You send your impression or digital file to Somer.
2. Somer pours & scans the model, designs the crown and uploads the digital file to a Bruxzir milling facility.
3. They mill a full contour, zirconia crown in the prescribed shade and design and return it to Somer.
4. Somer refines the crown with ideal incisal anatomy and enhanced shading and characterization.
5. We send the completed crown to you. We ask for 6 lab days.

The joke: Bruxzir is the new gold!

There is a joke in dental labs that Bruxzir is the new gold.

It is very strong, kind to the opposing and has excellent wear characteristics.

Bruxzir is suitable for single units and bridges. It is fabricated in the USA and is immune from crazy alloy prices.

It requires only .5 mm reduction and is cementable.

Gold comes in 1 shade; Bruxzir comes in tooth shades. But like gold, we will keep Bruxzir out of the esthetic zone for the time being.

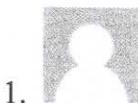
This post was written by:

John Feeney - who has written 10 posts on Somer Dental Labs.

John's responsibility at Somer is to help our offices with impressions, bites, treatment planning and the technical management of the lab.

Contact the author

One Response to “Bruxzir crowns have arrived”



1.

Tim Schafer DDS Says:
April 27th, 2011 at 3:06 pm

John- You said earlier that a stump shade is needed for Bruxzir, if the prep has some amalgam in it what stump shade do I request or do you recommend removing all alloy first.

Leave a Reply

Name (required)

Mail (will not be published) (required)

Website

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Somer Dental Laboratory was founded in 1982 by Keith Spencer, CDT and Larry Sowinski, CDT. Somer is located in Zionsville, Indiana.

Everyday, our technicians set teeth, build porcelain, cast frames, wax copings, scan models, and mill crowns on schedule on time and get great report cards from our dentists. [Learn More](#)

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Somer Hours of Business

We are open for business and welcome your inquiries from 7:00 a.m. to 5:00 p.m. Monday through Thursday. Our drivers pick-up and deliver cases Monday through Friday.

To schedule a pick-up, call or during business hours or Friday mornings. After hours, please call the Somer Pick-up Hotline at .

[See our Laboratory Schedule Here](#)

Somer's Vision and Mission Statement

Vision:

In unison, as a Team, Somer Dental Laboratories' vision is to establish an environment, which can productively provide quality products and services, education, personal growth, and financial security.

Mission Statement:

Somer Dental Laboratories' is committed to be a leader in the dental laboratory industry by educating our team to provide the highest standards of dental care through excellent service, quality products and advanced technology.

Recent Posts

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- [Nobel Prize at Purdue University](#)
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